Exhibit 1

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LEGAL TECH

EDI-Oracle Study: Humans Are Still Essential in E-Discovery

Don't turn it over to robots just yet

Monica Bay, New Jersey Law Journal

November 26, 2013

The first phase of the highly-anticipated Oracle/Electronic Discovery Institute joint research project has been completed, and confirms what many advocates have been preaching about technology-assisted review (aka predictive coding): that spending more money doesn't correlate with greater quality; that senior attorneys know what they are doing; and that you can't turn discovery over to robots—humans are still the most vital component of the project.

The study began in 2012, when the nonprofit EDI launched the project with Oracle Corp. Stanford University professors Peter Glynn and Gerd Infanger serving as chief scientists for the project; Pallab Chakraborty, e-discovery director in Oracle's legal department, and EDI co-founder Patrick Oot, the U.S. Securities and Exchange Commission's senior special counsel, are advisers.

"EDI directed the professors to not only evaluate the results submitted by the participants, but to help define a gold-standard to evaluate each of the respondents," said Oot. As a result, the study "not only looks at document categorization systems—but considers multiple evaluation standards used to assess the study participants."

The study "considered multiple evaluation systems using litigation data from real high-stakes litigation where the producing party was confident that it conducted a meticulous attorney-based document review to respond to the document request," he explained. Said Oracle's Chakraborty: "The document review originally conducted by outside counsel in the study matter was a rigorous undertaking that included a thorough review with multiple quality checks. The review team was comprised of both law firm associates and contract attorneys."

Participants paid a participation fee of $3,500 to help cover costs (and pay the professors), said Oot, noting that "participants were required to evaluate documents for responsiveness to the document request, identify documents to withhold for privilege, and locate hot documents that are highly relevant to the matter." Some vendors provided cost-free resources to participate in the study.

A key goal was to benchmark the "accuracy performance of different providers as they compared to different standards, but the cost of deploying their process as if it were a real case," he said. Vendors submitted invoices as if they were billing to a real matter. "To avoid gamesmanship, providers were held to pricing, and in some circumstances had to answer follow-up validation about their pricing practices," Oot said. Potential business with Oracle was a motivator for firms to participate in the study, he noted.

The technology-assisted review providers that submitted results included Backstop, Catalyst, Consilio, D4 Discovery, Daegis, DiscoverReady, Exterro, Huron, Integreon, Kroll Ontrack, McDermott Will & Emery's Discovery & Dispute Services, ProSearch, Quislex teamed with Driven, RVM, SFL Data and Valora.

Some participants took advantage of the opportunity to submit multiple results, creating an opportunity to use the study as an exercise to help fine tune proprietary systems, Oot noted. "To avoid the perception of a bake-off," providers were required to sign a strict nondisclosure agreement with EDI and Oracle that prevents them from disclosing or identifying their performance or the ranking of others, he said. Breaches "could result in liquidated damages, providers are deterred from disclosing their performance to others."

The Litigation

A 2007 Department of Justice matter involving government pricing practices at Sun Microsystems triggered the document production. Oracle completed an acquisition of Sun Microsystems in 2010, inheriting the litigation, explained Oot. "Oracle settled the underlying litigation in 2011, but had completed its document review of Sun documents. Chakraborty convinced the Oracle legal team that the data was a great opportunity to assist Oracle in the evaluation of predictive coding providers. Knowing of EDI's first study, Chakraborty then reached out to me at EDI to launch the study," Oot recalled. With assistance form Oracle's head of litigation, Deborah Miller, the team located Glynn and Infanger, he said.

The Process

Participants received a collection of 1,693,243 documents and review materials, including the complaint, custodian list, glossary, privilege memorandum, inside and outside attorney name list, confidentiality memorandum, tagging rules memorandum, issue tag flowcharts, issue tag definitions, case updates/announcements, specific document request review rules, an acronym list and a combined time line. Participants submitted interrogatories to Sarah Dean, an associate at Hogan Lovells who managed the document review in the original matter; she answered questions via conference calls. Not all participants finished the process, said Oot.

Phase I Results

EDI/Oracle has released four difference performance metrics that compare TAR performance to the original review: cost, and three F1 rankings for responsiveness, privilege and hotness, Oot said. "F1 is a measurement of how an information retrieval system performs. It should be noted that the results are merely ranking the study participants. Actual

F1 values will be released in Phase II out of concern that human re-review teams in Phase II could modify their behavior to achieve better results."

Oot identified the key takeaways for Phase I, when compared to the actual document review:

• Technology providers using similar underlying technology, but different human resources, performed in both the top-tier and bottom-tier of all categories. Conclusion: *Software is only as good as its operators.* Human contribution is the most significant element.

• The top quartile of responsiveness represents four different technologies.

• *Spending more money does not correlate with greater quality*. Inexpensive service provider performed very well.

• Per-document prices ranged from $0.03 to $0.89. All well below market standards of $1 per document of human-based contract attorney review.

• Tech Team 19's human input was *a single senior-level attorney who spent 64.5 hours on review and analysis.* Tech 19 performed best at finding both responsive documents and privileged documents. If the gold standard is to replicate the mind of the senior attorney who certifies he or she has conducted a reasonable inquiry in Federal Rule of Civil Procedure 26 (g), then it appears that both the original review and Tech Team 19 used a favorable methodology. Coincidentally, Team 15 used similar technology as Tech 19, with multiple contract reviewers, and did not achieve similar results.

• Tech Team 8, while in the middle tier of price performance, married a U.S.-based team with an overseas team to achieve the second-best performance on responsiveness and performed fairly well on privilege. *This may dispel the myth that overseas teams perform less effectively than U.S.-based document review teams*. Especially when other technology providers performed poorly with U.S.-based teams.

• Tech 14 performed well at locating both responsive and hot documents and was a top-tier performer on price. It was unclear from invoices the degree of effort placed on privilege review, but Tech 14 performed in the bottom half of the respondents.

• Tech 5 also engaged experienced attorneys and were the second-most effective at identifying privileged information.

• Tech 10 and 17 represent multiple submissions from a single provider. After auditing their pricing, the study team concludes that both provide significant performance value for the cost. Given the low pricing, a producing party might consider deploying alternate attorney resources to elevate the privilege ranking, yet still staying price competitive.

• Tech 3 reviewed the most documents with human reviewers—nearly 50 percent of the documents saw human eyes. While it performed very well at locating hot documents and above average at responsiveness, it?? was exponentially more expensive than some higher-tier providers. While there are certain cases where eyes on every document is important, Tech 3 might consider deploying more aggressive technology protocols in their response to better compete.

EDI plans to post its report in December on ediscoveryinstitute.org. Chakraborty, Oot, Infanger and Glynn are scheduled to be at LegalTech New York in February to discuss the results.

Phase II will involve human teams reviewing a sample of less than 30,000 documents, said Oot. Organizers are seeking more participants to review the sample; if your firm is interested, contact Danielle Nicholson at danielle@lawinstitute.org. •

Bay is editor-in-chief of Law Technology News (an affiliate of the Law Journal) and a member of the California bar. For daily tech news, go to lawtechnologynews.com.